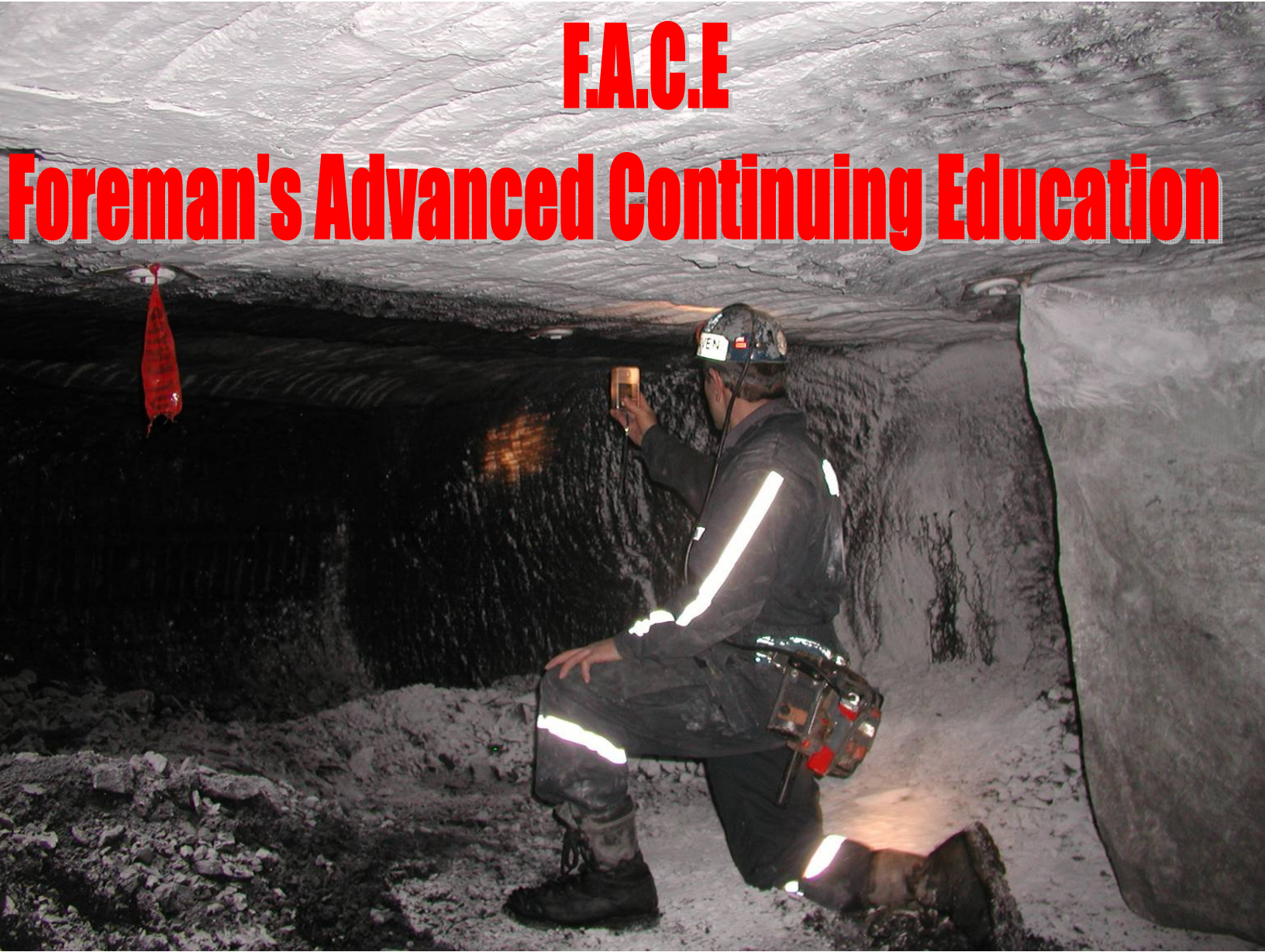


**F.A.C.E**

# **Foreman's Advanced Continuing Education**



## **FOREMAN'S ADVANCED CONTINUING EDUCATION (F.A.C.E.)**

The F.A.C.E. program was formulated as a training tool used by the mine safety analyst to observe, teach and train foremen in becoming more knowledgeable and effective while performing their duties. The Office of Mine Safety and Licensing believes that accidents and fatalities can be drastically reduced when mine foremen perform their duties in a safe and productive manner and lead by example. This happens only when foremen are properly trained and follow safe work habits and procedures. It's the foreman's responsibility to comply with the law. To do so, he must understand the approved mine plans such as roof control, ventilation etc. He also has to know the work habits and practices of the employees under his jurisdiction. He must constantly strive to teach and train these miners to become safe and productive workers. Due to this enormous work load a foreman cannot effectively perform his job duties while operating equipment or performing other jobs that restrict him from his duties as a supervisor.

The mine safety analyst conducts F.A.C.E. training each time he goes underground. At various times he will arrive at the mine early and accompany the foreman during his pre-shift examination. He will also observe him performing his daily routine duties on the coal producing section.

The analyst will teach, assist and advise the foreman in any areas where he appears deficient. Once the mine safety analyst completes his analysis observation at a mine, all unsafe acts committed by the foreman and the miners will be documented. The report will be reviewed with management prior to the analyst leaving the mine. This information is necessary for the analyst to see how the foreman is progressing upon his return visit to the mine.

Listed below are some of the foreman's job duties and responsibilities as outlined in the underground JSA manual.

### **(1) BEFORE THE SHIFT STARTS:**

- A. Foreman must ensure he has proper working equipment to perform his duties
- B. Check all pre-shift reports
- C. Check to see if all employees are at work

- D. Check to see that employee has needed supplies
- E. Ensure each employee checks in the mine

**(2) AS CREW ENTERS THE MINE:**

- A. Watch employees as they load into the mantrip
- B. See that each employee has the necessary equipment to properly perform his duties
- C. Make sure each employee has a safe place to ride
- D. Observe for dangers as the mantrip travels through the mine
- E. Observe employees as they dismount from mantrip

**(3) UPON ARRIVAL AT THE SECTION, THE FOLLOWING CHECKS SHOULD BE COMPLETED:**

- A. Foreman should make an imminent danger observation across the working section
- B. Emergency transportation available
- C. First aid equipment
- D. Fire fighting equipment.
- E. Condition of the section power center
- F. High voltage cable
- G. Oxygen and acetylene tanks should be properly secured (in an upright position if possible)
- H. Trash and debris is cleaned up.
- I. Section should be supplied with adequate rock dust and roof support material
- J. Condition of the oil storage area
- K. Stopping lines
- L. Supplies for the section should be located in a place where they may be avoided by mobile equipment
- M. Ensure that equipment operators perform pre-operational equipment checks

**(4) TO BE CHECK CONTINUOUSLY DURING EACH SHIFT:**

- A. Loose draw rock
- B. Accumulations of methane
- C. Air traveling proper course
- D. Volume of air in the last open crosscut and at working faces

- E. Roof conditions
- F. General conditions of hall roads
- G. Excess loose coal and fine dry coal dust that has accumulated on the section shall be removed
- H. Periodically check the dumping point, accumulation of loose coal, hot bearings, water sprays, adequate rock dust, guards, insulating mats, belt switches, unguarded cables, and fire sensor/CO monitoring systems
- I. Rock dusting on the work section
- J. Trailing cables
- K. Neutral air ventilated to main return
- L. Ensure there is ample water to operate the section
- M. Ensure that entry and crosscut widths do not exceed what is required in the roof control plan
- N. Entries driven too deep
- O. Entries and crosscuts driven on sights
- P. Condition of the explosive magazine
- Q. Periodically throughout the shift, check with equipment operators regarding the safe operating condition of their equipment
- R. When leaving the section at the end of the shift the same procedures as entering the mines should be followed
- S. Ensure all face equipment is de-energized when leaving section unattended
- T. Ensure that all employees have checked out at the end of the shift

## **PRE-SHIFT/ON-SHIFT EXAMINATION**

### **1. EXAMINE WORKING PLACE INBY LAST OPEN CROSSCUT:**

- A. Exam working place inby last open crosscut for potential roof and rib hazards as follows;
  - ◆ Wide bolt spacing
  - ◆ Wide entry width
  - ◆ Test holes as required
  - ◆ Reflectors at unbolted areas
  - ◆ Loose roof
  - ◆ Kettle bottoms
  - ◆ Hillseams
- B. Examine working place inby last open crosscut to ensure that rock dust has been applied to roof, ribs and floor as required and that excessive loose coal and coal dust has been removed
- C. Examine working place inby last open crosscut to ensure that energized electrical face equipment has not been left unattended in excess of 20 minutes
- D. Examine working place inby last open crosscut for accumulation of dangerous gases

### **2. PLACE, DATE, TIME AND INITIALS IN WORKING PLACES:**

- A. Place, date, time and initials as close as practical to all working faces. Do not proceed inby unsupported roof

### **3. EXAMINE ALL AREAS:**

- A. Ensure all areas on the section where employees are required to work or travel from dumping point to face area for potential roof and/or rib hazards as follows; (note: this includes travelway from portal to section)
  - ◆ Wide entry widths
  - ◆ Wide blot spacing
  - ◆ Test holes as required
  - ◆ Loose roof
  - ◆ Kettle bottoms
  - ◆ Hillseams
  - ◆ All other hazards

**4. PRE-SHIFT BOOKS:**

- A. Filled out before crew entries mine
- B. Each entry noted
- C. Intake and return air readings
- D. Hazards noted
- E. Electrical installations
- F. All other hazards

**5. COUNTER SIGNING BOOK:**

- A. Ensure pre-shift/on-shift book is properly counter signed

**The following are face questions that the analyst may ask the foremen during an analysis observation at a mine:**

1. Explain the roof bolt pattern and installation sequence.
2. How often and to what depth must roof test holes be drilled?
3. What shall be done to openings more than 20 feet wide?
4. How shall the A. T. R. S. be placed when installing permanent roof support?
5. What steps shall be taken when mining approaches within 150 feet of an outcrop?
6. What is the minimum amount of air required at the working face?
7. What is the minimum amount of air required in the last open crosscut?
8. What is the minimum amount of air required to the intake of the pillar line?
9. What is the explosive range of methane?
10. When operating electrical equipment at the face, how often shall equipment operators make gas checks?
11. When operating equipment in the face area the power shall be disconnected from the equipment and left disconnected when the methane content reaches what amount? What must be done before the equipment can be energized?
12. When the mine fan stops, provisions shall be made to withdrawal all persons from the mine if ventilation cannot be restored within what time period?
13. How close to the face must rockdust be applied?
14. Who is the M. E. T. or E. M. T. on duty today?
15. When mining equipment is being used, how shall it be maintained?
16. How often shall breakthroughs for air be made when mining?
17. The approved self rescuer device shall be how close to the miner at all times?
18. How much oxygen shall be delivered to all active underground working places in a mine?

19. Can cutting and welding be conducted in by the last open crosscut?
20. What shall be done with extra length or long trailing cables?
21. When blasting, how much stemming is required in boreholes over 4 feet deep?
22. When blasting how much stemming is required in boreholes less than 4 feet deep?
23. The main intake and return entries all escapeways and each seal on the return shall be examined how often?
24. Who is responsible for conducting the weekly examinations?
25. A pre-shift examination shall be conducted within what time frame prior to shifts entering the mine?
26. Where are the primary and secondary escapeways located?
27. When a serious accident occurs at this mine when does it have to be reported to the Office Of Mine Safety and Licensing?
28. How many days of actual mining experience must a miner have before he can have charge of electrical face equipment?
29. What shall be done before electric face equipment is brought in by the last open crosscut next to the working face?
30. What shall the fire boss leave at the face of every place examined as evidence that he has performed his duties?
31. When mining approaches old works at what point are boreholes required to be drilled?
32. What is the purpose of the self contained self rescuer?
33. Hydrogen gas will explode from 4.1 to 74% and is formed by mine fires, explosions and what else?
34. How close to the face must roof bolts be installed?
35. How much annual retraining must a miner receive each year?
36. Before performing any type electrical, mechanical or hydraulic work on electrical equipment what must be done?



37. What is the correct way to ventilate a battery charging station?
38. Explain the difference between blowing and exhausting air in the face.
39. Can a miner be required to operate any equipment or work in any condition which he reasonably believes to be unsafe?
40. Can a foreman who is convicted of intentionally ordering a miner to violate a mine safety law that places the miner in imminent danger of serious injury or death lose his foreman's certificate permanently?